

IVUS GUIDED MANAGEMENT OF ANGIOGRAPHIC INTERMEDIATE CORONARY LESIONS: LONG TERM OUTCOME AFTER REFERRAL TO PCI, CABGS OR MEDICAL THERAPY

i2 Poster Contributions

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Background: Intravascular ultrasound (IVUS) determines the true morphologic severity of angiographic intermediate coronary lesions (ICL) which may be a useful guide for revascularisation. Long term outcomes based on IVUS guidance are limited. We sought to determine the clinical outcomes of patients with angiographic ICL who were referred for percutaneous intervention (PCI), coronary artery bypass graft surgery (CABGS) or medical therapy (MT) based on IVUS findings.

Methods: Between January 2006 to June 2009, 184 patients with angiographic ICL had IVUS performed. They were subsequently referred for PCI (n=43), CABG (n=73) or MT (n=85) based on IVUS findings. Clinical, angiographic and 2 year outcome data obtained from institutional database and telephone follow up were analysed. Composite endpoint include cardiac death, target vessel revascularization (TVR), congestive heart failure (CHF) or recurrent angina requiring admission.

Results: In the PCI, CABG and MT groups, there was no significant difference in baseline characteristics including age (61 vs 65 vs 61years), gender (55% vs 69% vs 61% male) and risk factors including hypertension (48% vs 62% vs 58%), hyperlipidemia (57% vs 60% vs 41%), smoking (37% vs 30% vs 38%) and diabetes (24% vs 16% vs 13%). The incidence of angiographic multi-vessel disease was significantly higher in the CABG group compared against both the PCI and MT groups ($p<0.0001$). No difference was observed in the composite endpoint (16% vs 8% vs 17%), mortality (5% vs 7% vs 2%), recurrent angina requiring admission (7% vs 4% vs 8%) and CHF (5% vs 2% vs 4%) in the PCI, CABG and MT groups respectively. The need for revascularisation (2% vs 0% vs 6%) was significantly higher in the MT group ($p=0.03$) compared with CABG but not against PCI group ($p=0.37$).

Conclusion: Management of angiographic intermediate coronary lesions guided by IVUS findings results in comparable long term clinical outcomes in patients referred for PCI, CABGS or medical therapy.